

BARG Newsletter August 2024



Ballarat Amateur Radio Group Inc. #6953T



August 2024 Monthly Newsletter

Next General Meeting BARG inc
11:00am, Saturday 24th August 2024

At the Airport - All Welcome

Contacting us

BARG@BARG.ORG.AU

We're on the web.

www.barg.org.au

https://twitter.com/vk3_barg

<https://www.facebook.com/groups/VK3BML/>

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Cover Photograph, Ian VK3AXH

Times and dates of nets as below

Club Nets: VHF NET: Every Tuesday Night at 8 pm on 146.750 MHz - VK3RBA

HF NET: Every Thursday Night at 8 pm on 3.608 MHz - VK3BML

6m NET: Every Tuesday Night at 8:30 pm on 53.650Mhz RX / 52.650Mhz TX - FM
with a 91.5 tone - VK3RWU

LINKED REPEATERS: *The local VK3RBA-70cm repeater on Mt Buninyong is part of a network of linked repeaters covering North-Western Victoria.*

Access details for this repeater have recently changed.

For full details of this linked network and access details see <https://www.qrz.com/lookup/vk3rba>

You can listen to the system live <http://vk3rba.dyndns.org:441/>

This linked system may be accessed via IRLP node 9503.



President's Report August 2024



This is going to be another short report as I don't have much this month to report on as the past 3 weeks now, I have been out of the loop of club goings on.

The club call sign can add another contest to it with the Remembrance Day Contest currently on as I write this, when I left the clubrooms this morning Peter and Ian were already there and almost setup for it. I was hoping to take part at the club but was unable to due to other commitments that came up at the last minute.

There is another Bunnings BBQ on the cards for us in December date still to be confirmed. I would like to encourage all members to try and be available to assist on the day. Committee should be able to provide a date for this by the AGM, I just cannot find it at present.

The AGM is this month on the 24th of August 2024.

Ben VK3NRD.

The Next BARG General Meeting Following the AGM, Saturday 24th of August 2024

No BARG Construction Day
has been scheduled for August due to the
condition of the rooms after the breakin.

BARG inc. OFFICE BEARERS

President	Ben Daniel VK3NRD	Ordinary Member	Tom George VK3DMK
Vice President	Colin Consiglio VK3NCC	Ordinary Member	Ian Fairweather VK3YFD
Secretary	Peter Westgarth VK3APW	Ordinary Member	Doug Ellery VK3DRE
Treasurer	Chris Huggins VK3QY	Ordinary Member	David Martin VK3KQT
Ordinary Member	Craig Cook VK3KG	Ordinary Member	Mal White VK3OAK

NOTICE OF BARG Inc **ANNUAL GENERAL** **MEETING**

**Notice is hereby given.
of the
Ballarat Amateur Radio Group Inc
Annual General Meeting.
Saturday 24th of August 2024 at 11:00am
with BBQ lunch to follow.**

Membership Fees Due

Ballarat Amateur Radio Group inc

Just a reminder that your annual membership subscription is due and payable. The fees for the year 2024/25 are \$35.00.

Please deposit or transfer funds into our Bendigo bank account details below.



BARG General Account.
BSB 633 000
Account Number 142 591 247



Furthermore, Could all renewing members please go to the Members page on our web site to complete the renewal membership form. This is to ensure we have up to date contact, call sign and emergency contact details.

The membership page is at

https://www.barg.org.au/?page_id=104

or use the direct link to the form here

<https://docs.google.com/forms/d/e/1FAIpQLSdlbui3zD6ccTKGmlkYWWe01HH20uDIsvpJrLqZnG6V4BeRQ/viewform?usp=sharing>

73 Chris VK3QY Treasurer BARGinc.

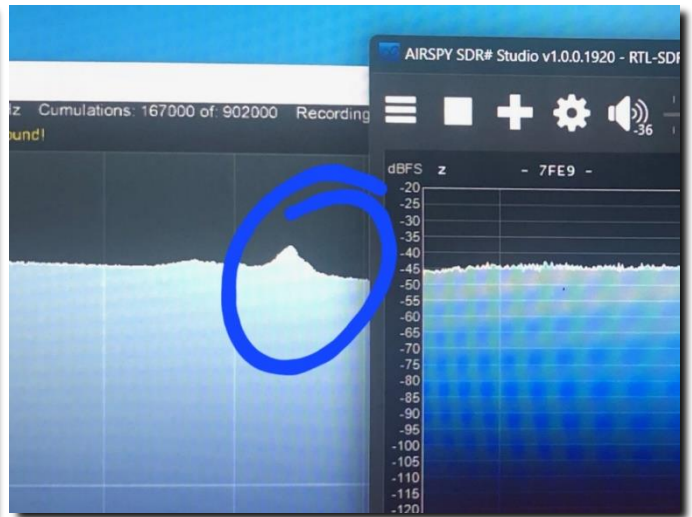
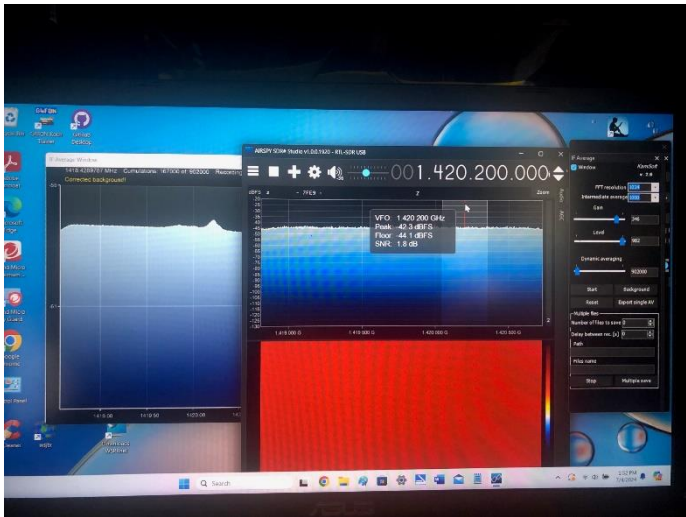
Ps: Thank you again to those who have already paid

In the Shack - Receiving the Hydrogen Line

Contributor Bob VK3BNC

The results of a very long quest to capture the Hydrogen Line which is located on 1.420Ghz.

It's of interest to the likes of Astronomers , Radio astronomers and indeed Ham operators.



The equipment here consists of a one metre offset dish and feed, a low noise amplifier with a Saw filter on 1.420Ghz approximately into an SDR receiver and laptop running Win 11. Software Defined Receivers or SDR's are now entrenched in our amateur transceivers, their versatility and applications are truly amazing. Standalone "Dongles" are cheap and can open a fascinating world to the radio and electronics experimenter so coupled with your PC you're well on the way to some interesting adventures.

Excitement for me and thought I would share it with members.

What is the Hydrogen Line?

Hydrogen line radiation was first detected by Harvard grad student Harold Ewen and his professor, Edward Purcell, in 1951.

Their instrumentation, a simple waveguide horn antenna about a meter across driving a crude diode mixer, is now on display at the National Radio Astronomy Observatory (NRAO), Green Bank WV. Hydrogen Line Detection!



Bob VK3BNC Antenna, Australia

From Karl Jansky's discoveries of Solar Noise in 1932 or as he called it Cosmic Static this triggered Radio Astronomers in Holland, USA and Australia to contemplate emissions from Hydrogen.

A paper by Grote Reber (our adopted Radio Astronomer) in 1940 suggested that it may be possible to do just that, detect Hydrogen emissions.

He made a start in 1947 on the design and construction of a receiver that was both stable and sensitive enough to detect this emission on what was then an almost impossible task.

However, this was interrupted by a move to the USA and others in 1951 succeeded in the quest.

Australia along with the US was then quick to confirm the discovery. It is interesting to note that this emission from Hydrogen and known as the Hydrogen line, it occurs due to an atomic spin within the Hydrogen atom releasing a photon of energy on 1.420Ghz. It is estimated that this occurs once in a million years!

With the availability of computers, sophisticated software and the low noise amplifying devices now available Grote Reber would today be in "electronic heaven"! He has an observatory in Tasmania dedicated to his memory.

He is also remembered for his low frequency work. "Beyond Southern Skies" a book dedicated to the establishment and subsequent rise of Australia's Radio Astronomy fame and a salute to the "Big Dish" in Parkes which most Hams like to take ownership of! It is recommended to those drawn to this fascinating subject.

Cheers. Bob VK3BNC

<https://www.everythingrf.com/community/what-is-a-saw-filter>

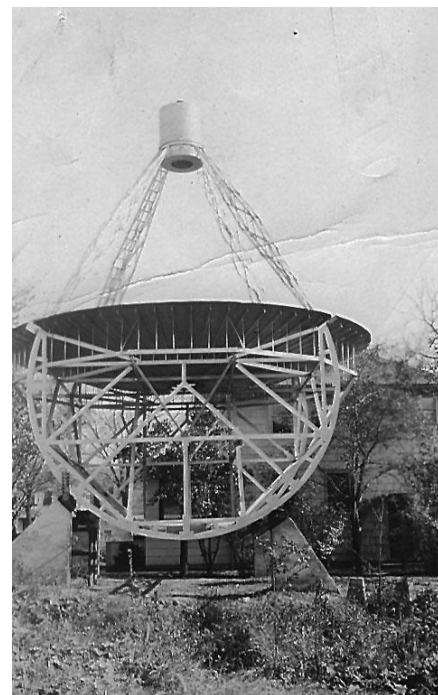
https://en.wikipedia.org/wiki/Software-defined_radio

<https://www.utas.edu.au/groterebermuseum>

<https://www.radio-astronomy.org/node/368>



Ewen-Purcell Antenna. USA



Grote Reber Telescope. USA

I found this site, set up by a US Amateur. It follows the procedure I learned when I started way back in 1977:

<https://morsefree.com/>

I started learning with dit, di dit, di di dit, di di di dit (E, I, S, H) then the basic Dahs and on from that. I used cassette tapes that I had purchased from the WIA with a portable machine. Drove people at work mad, practising when we weren't called out and was told in no uncertain terms to use headphones.

Given I want to get back into it I searched on line, and I liked this site.

Try it and see. Cheers... Robert VK3ARM

VHF and Above for August 2024 A trip down memory lane

Having not been very active for a few years has resulted in looking back at some things I've done in amateur radio particularly in regard to EME activity. My interest in this activity began as a result of attending GippsTech conferences and listening to talks given by Doug VK3UM about his great achievements on 1296MHz.

In addition, I met Rex VK7MO who is also a keen enthusiast on weak signal modes both terrestrial and EME. We have done many experiments on EME using different modes with pros and cons for all.

Although I'm not quite sure of the year but around 2003/2004 I had my first EME qso on 2m using a single DL6WU design 12 element Yagi around 50ft above ground and an AM17 Philips amplifier modified to operate in the 2m amateur band with an output of 400 watts utilising a pair of 4CX250B valves in the PA.

A new digital mode JT44 developed by Joe Taylor K1JT was used to complete my 1st EME contact with W5UN on 21st August 2004, 20 years ago. My report was -22db. Dave was doing all the work with his 32 Yagi's and around 1 KW of power. On that day there were several VK3's calling him, and I nearly fell off my chair when I saw my callsign appear in the decode window.

This resulted in my enthusiasm to build some bigger antennas to improve my setup for this activity. I visited Des VK3CY in central Victoria who had 4 Yagi's and at the time 56 different countries using CW. Des was also using the Philips AM17 amplifier. Impressed with his setup I decided to replicate the antenna's Des was using which were a modified version of DL6WU design by DJ9BV which were 18 el each Yagi, and folded dipole with 4:1 balun with all elements insulated from the boom which were 10m in length. The "H" frame is 4.2 wide and 4.6m vertical separation. A 4:1 power divider was home brewed to feed each Yagi. Feed line is LDF450 to the power divider and 9913 from the power divider to each antenna feed. Elevation was done using an actuator and rotation using a CDC Tailtwister rotator. Rotary encoders are used to 2 digital readouts for V and H positions to 0.1degree. My preamp was designed by PA3BIY and assembled and aligned by me.

With the assistance of John VK3AIG (dec) and Ian VK3IDL the H frame was lifted into place on a Nally Tower with ropes and pulleys and then finally the antenna's etc next. Feed lines were put in place as the mast was able to be tilted over the house roof so access to the Yagi feeds without too much difficulty.

Over the past 20 years on 2m I have had 3234 QSO's including several with Joe Taylor K1JT who I subsequently met at GippsTech after he gave a presentation on digital EME modes., only 3 SSB contacts with RN6BN and RA6AX. Utilising 64 yagis.in 2007. Also had a number of CW contacts as well. I've reached 114 DXCC countries on 2mx which was one of my goals.

My rig is Icom IC910 which I modified to have separate TX and RX ports for 2m band only which simplified the coaxial switching for the preamplifier etc.

I hope the above is not too boring for readers but will hopefully be a catalyst for others to share their experiences and achievements in what is I believe a fantastic hobby we are privileged to take part in and enjoy.

Till next time 73 de VK3AXH

My First Single-Operator Contest

Contributor James VK3JFR



This was my first single-operator contest. I had previously participated in the John Moyle Memorial Field Day contest with the Wimmera Amateur Radio Group as a multi-operator station.

For the Trans-Tasman contest, I used the BARG Remote Radio from my computer at home. It was very exciting to compete with others. I spent two hours competing before I used up my station time. I made a total of 36 contacts from QLD, NSW, SA, and Victoria.

The logger I used was VKCL. VK Contest Log
<https://www.vk4sn.com/Contests/Contesting>

I scored 334 points, placing me 21st. I thoroughly enjoyed the contest, and I am keen to participate next year in hopes of beating my personal score.



Cheers James VK3JFR

2nd Annual VKFF National Get Together 2024

Between Friday 25th October and Sunday 27th October 2024, a special event is being held at Bendigo, Victoria. It is the 2nd annual VKFF National Get Together.

The event commences on Friday evening with a dinner at the majestic Hotel Shamrock. Meals and drinks at your own cost.

On Saturday at the Lakeside Hotel, Bendigo, attendees will enjoy a series of excellent guest speakers on topics surrounding park activating. There will be 12 presentations, and these include an introduction to the VKFF program, activating parks on King Island, satellites from parks, snake awareness & safety, CW & digital modes from parks. Our MC for the day will be Chris VK5FR.

There will also be a number of static displays at the venue and a raffle with various prizes will be run and drawn on Saturday.

The cost for attending the presentations is \$20.00 and this includes morning and afternoon tea.

On Saturday evening we have our own private function room for an evening dinner, with a guest speaker. Meals and drinks at your own cost.

Sunday morning, a BBQ breakfast will be held at the clubrooms of the Bendigo Amateur Radio & Electronics Club. The cost for the BBQ is \$10.00. This will be followed by multiple VKFF park activations on Sunday.

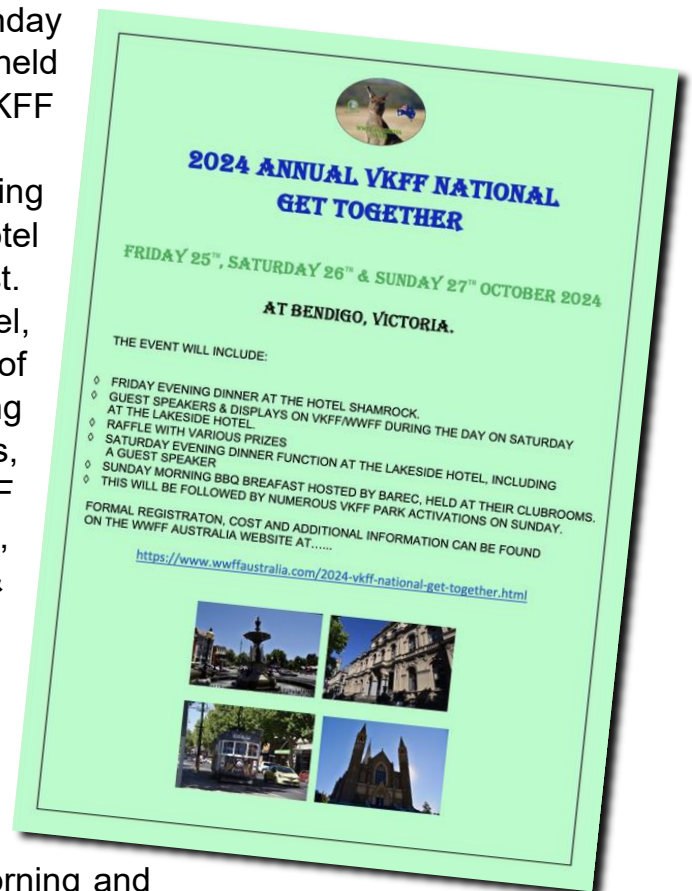
If you wish to attend any of the segments of the event, you must register to attend. Walk ups will not be accepted. Registration is easy and can be completed by visiting the WWFF Australia website on wwffaustralia.com Look for the 2024 VKFF National Get Together page.

Registration for the event closes on Friday 11th October 2024.

So far, 41 amateurs have registered to attend the event so don't leave this to the last moment. Please register. This is a terrific event to catch up with fellow amateurs and learn a bit more about the VKFF program, no matter if you are an experienced park activator and hunter, or never been involved previously.

Last year's event at Renmark in South Australia was very well received, and this year's event at Bendigo is shaping up to be a brilliant Get Together.

Cheers. 73 Paul VK5PAS.



"Radios For Everyone"

Contributor Colin VK3NCC



During July we were able to visit the Halifax Citadel National Historic Site in Nova Scotia, Canada.

It was a very interesting experience and an insight into the social and military history of Halifax.



There are tributes to those involved in the many and varied conflicts that Canada participated in.

Of course there is the inevitable piece of historic radio equipment.

This one here particularly caught my eye as the controls were labelled in both in English and Cyrillic scripts.

It's something that I had never considered.



Wireless Set No.19

The designs for this transceiver were developed by Royal Signals and Radio Establishment and Pye in 1940 and after producing a number of MkI equipment it then continued in development, emerging as the MkII in 1941 and finally the MkIII in 1942.

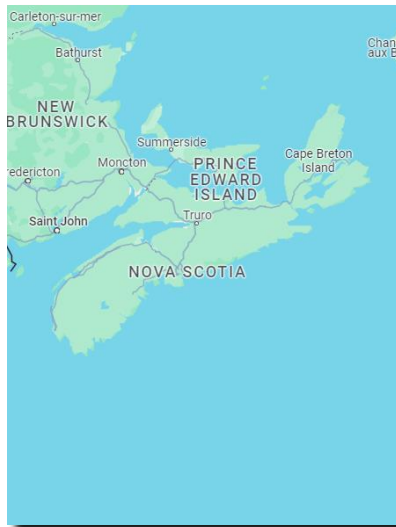
The sets were used by the British Army up to the early 50s and by Canadian Divisions during WWII. Besides being built in the UK, the sets were also produced by a number of different manufacturers in Canada and the USA. Once designs had been customised for ease of sourcing American components, by liaison between Pye and a four-man Canadian team, the firms selected to manufacture the sets were Northern Electric, Canadian Marconi and RCA Victor in Canada; and Zenith, RCA and Philco in the US.

Many MkII versions were made for the "Lend-lease" program in which much military materiel including not only smaller items such as these but also aircraft such as the Spitfire were sent to Russia to combat Nazi aggression. As a result of this programme many of the No 19 sets still around have dual English and Russian legends on their front panels.



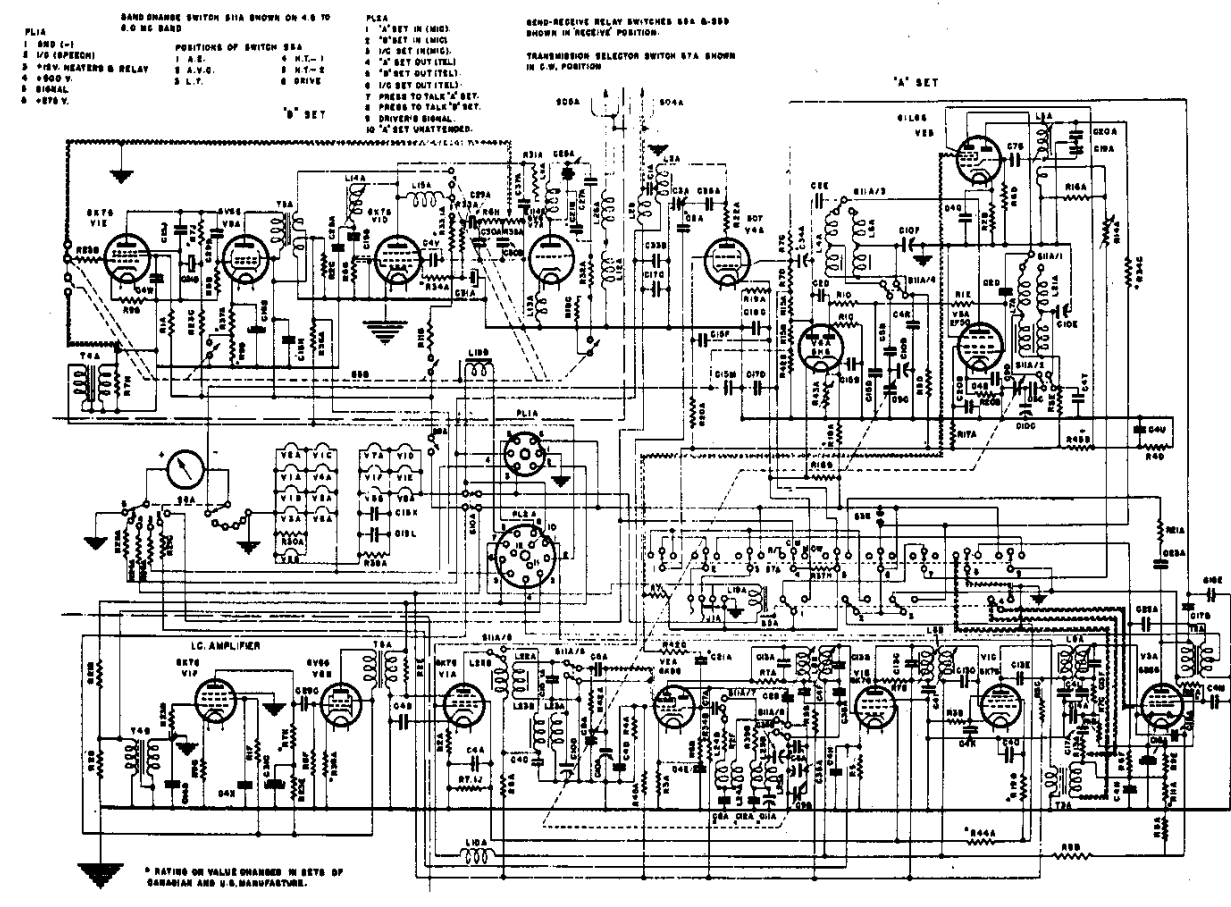
Oh, and yes by the way
did you know they had
economy sized refills of
Magic Smoke in 1865?

Cheers. Colin
VK3NCC



<https://parks.canada.ca/lhn-nhs/ns/halifax>

<http://www.radiomuseum.co.uk/ws19.html>



Three New Aussie Cube Sats to Listen For

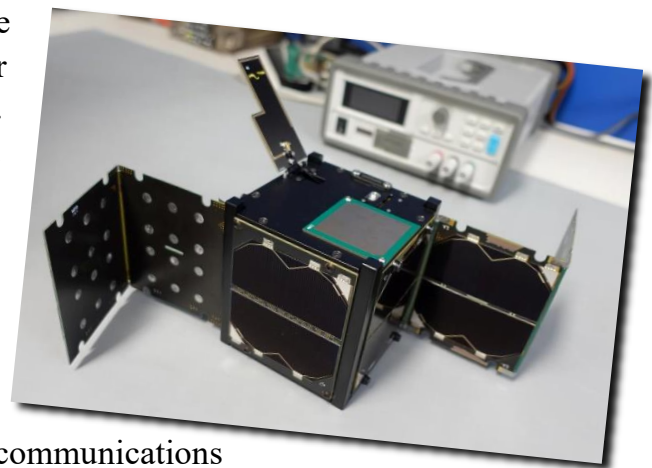


Contributors Fergus VK6DRD, Tom VK3DMK

Three Australian built, small cost-effective satellites (CubeSats) carrying WA payloads set for space – has docked at the International Space Station.

The Binar 2, 3 and 4 CubeSats were launched on a SpaceX Falcon 9 rocket from NASA's Kennedy Space Centre in Cape Canaveral, Florida on Sunday 4 August.

The CubeSats – which are typically designed for science, technology and research missions – are carrying instrumentation from Australia's national science agency, CSIRO, as well as Perth-based communications systems company AVI.



AVI has sent transmitters to be tested in the space environment. CSIRO is testing how new materials can protect electronics against radiation.

The CubeSats will orbit Earth approximately every 90 minutes for 6-12 months. They'll be in low earth orbit, around 400 kilometres above the surface of our planet.

This occasion marks the first time a business based in WA has sent its goods into space, or any WA payload has left the Earth's atmosphere.

Binar-2, 3, and 4 are due for ISS deployment about the 29th of August.

<https://www.facebook.com/binarspace/>

<https://www.binarspace.com/about-binar/>



You can listen for Binar-2, 3, and 4 beacons, their centre frequencies are:

- Binar-2: 437.700 MHz
- Binar-3: 437.850 MHz
- Binar-4: 437.925 MHz

If you want to see if you can decode the data, the modulation type is GMSK at 9600 baud. If successful, you should see the VK6BSP callsign followed by a bunch of characters.

Feel free to email Fergus VK6DRD, fergus.downey@curtin.edu.au

If anyone manages to receive beacon data, they can if they like with a time stamp and location they received the transmission send that data to Fergus.

Any extra data received from the satellite is a big win for us!

Check out [SatNOGS](#) for orbital data and predictions.

A whole bunch of passes for each of the satellites will be scheduled on this and more ground stations in Australia would be awesome to see!

Also planned is hosting a capture the satellite game with one of the satellites.

This will let you transmit your callsign to the satellite which will then be added to its beacon.

When we are ready, we will be posting more information about the game on our social media and website, feel free to add these to your newsletter if you think people will be interested:

- [Instagram](#)
- [Website](#)
- <https://www.facebook.com/binarspace/>

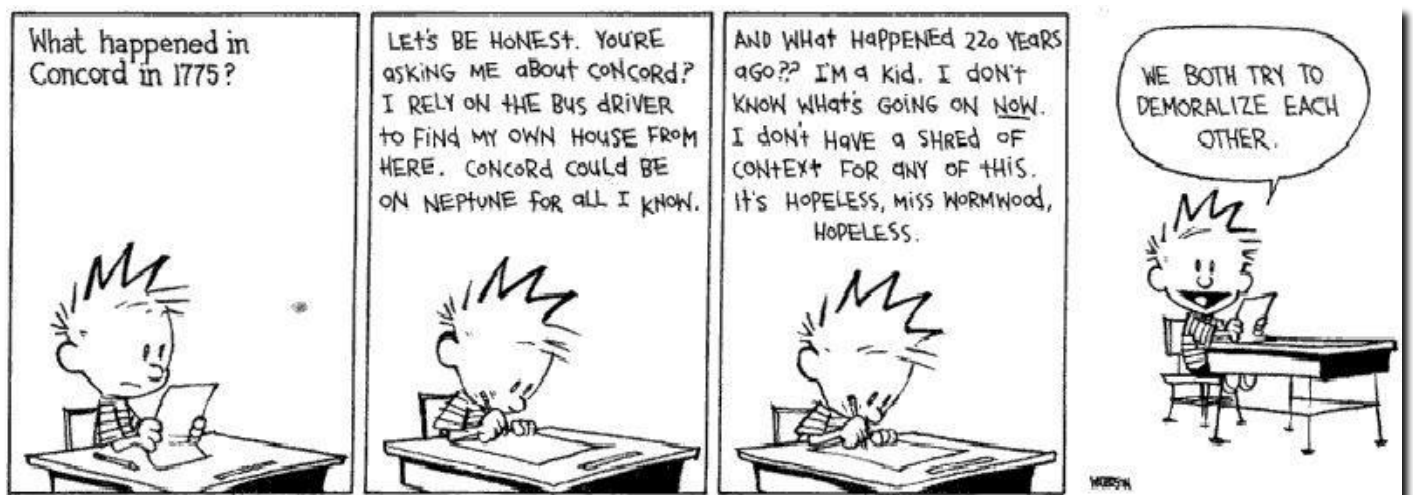
Any questions you have about any of this, feel free to reach out anytime!

Kind regards, Fergus Downey, VK6DRD

ACMA Amateur Radio Exam Assessor List VK3

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Anthony Nance		Anthony.nance@bigpond.com	VIC
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Stephen Bakker	0407841402	stephenbakker@hotmail.com	Warnambool VIC
Stephen Ireland Specialist	0412 421 253	vk3vm@hotmail.com	Hughesdale VIC



BARG Members Club Dining Events

There are two monthly social events planned.

The ladies' morning coffee is planned for the first Tuesday morning of each month at 10:00am at **Live it Up.**

Greenhill Enterprise Centre, University Drive, Mt Helen

The dining day/night events are held on the 3rd Friday of each month at locations to be announced.

Daytime events will occur 3rd Saturday of each month at midday.

Notices will be sent out as a reminder to get numbers etc prior to booking each dinner.

Cheers. Ian VK3AXH

BARG Coffee Mornings

Come out for a chat, coffee, snack, and solve the world's problems, all in a morning.

Every Thursday Morning at 10:00 am

Food Seduction on Doveton

524 Doveton St Nth

Soldiers Hill

(The old Gove Bike Shop)

YOU MAY HAVE NOTICED OVER THE LAST COUPLE OF NEWSLETTERS, I HAVE USED SOME MEMBERS' PHOTOGRAPHS ON THE FRONT PAGE. I HOPE TO CONTINUE THIS THEME BUT NEED HELP FROM READERS TO SUPPLY IMAGES EVEN REMOTELCONNECTED WITH AMATEUR RADIO/ELECTRONICS.

VK3ARM Caravan Project

Contributor Robert VK3ARM

I'm busy restoring my 44-year-old 13-foot Coronet Prince Caravan, hoping to tow it to Moonambel in October and possibly also to the Cavendish weekend in November sometime (organised by Peter VK3HEW).



The caravan has been a spare bedroom for quite a few years now and as I get older, I'm a bit tented out.



The caravan's tare weight is a bit over 900kg so it will tow quite well behind my car which can legally handle a braked 1200kg load.

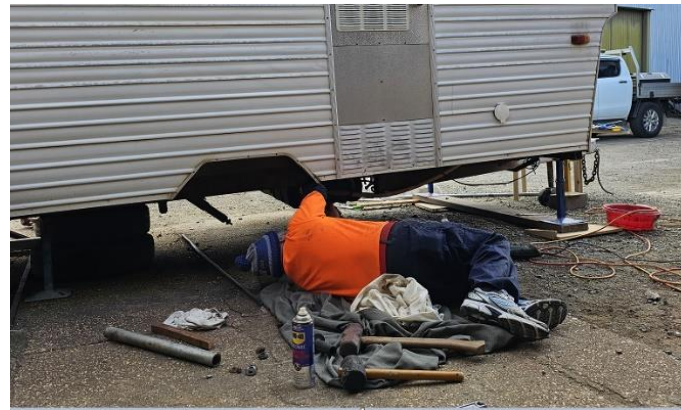
Not considering big journeys, more the weekends here and there where I could use it as a portable shack with a comfortable bed and basic kitchen, out of the weather.

It has a ways to go yet. We towed it into town last week, put it up on stands and ripped out the existing running gear.

I have new springs, a new complete axle assembly designed for electric brakes, new hitch and new wheels. I have a new Elecbrakes controller to go onto the A Frame. A new bumper bar and spare wheel hanger will finish off the major work.

Then I'll tackle restoring the 12 volt circuits and install a new, replacement solar panel on the roof.

I have a solar controller that will replace the existing one. If I need more current than the new roof one can provide, I have a portable solar blanket, rated at 120 watts that will plug into the circuit as needed.



The caravan will also get new LED tail and side lights.

Replacing the override brakes with electric brakes will increase its safety on the road. After that the more finicky jobs will happen. It's already pretty clean inside.

Hopefully I'll end up with a nice mobile shack to give me the ability to take part in more portable operations, with comfort of course. I'm getting help from the local Men's Shed folk who are more than happy to take possession of the bits that have come off.

You might hear VK3ARM Portable a bit more after this project is completed.

Cheers. Robert VK3ARM.





Advocacy Education
Support

RENEWING? JOINING? Consider these things –

The Wireless Institute of Australia

Congratulations

In becoming a radio amateur, you have joined the ranks of more than 13,000 Australian radio amateurs and a worldwide fellowship of some 3 million, from all walks of life.

Your voice since 1910

The WIA – a united, truly national organisation run by radio amateurs for radio amateurs.

Join, benefit and contribute.
Here's what you get and what you can do.

WIA membership benefits

Amateur Radio magazine – supporting your interests

6 issues a year – print and online

- ▶ The trusted source for Australian amateur radio since 1933
- ▶ Covering **all facets** of amateur radio
- ▶ Produced **by** Australian amateurs **for** Australian amateurs
- ▶ Hamads free – For-sale/Wanted – print and online

Discount Card – gets discounts at vendors

WIA Online Bookshop – supporting your self-learning

A curated list of recommended books from trusted sources

- ▶ WIA books discounted to members, e.g. Foundation Manual

QSL Service – supporting your on-air activities

Send and collect your precious QSL cards. Free to members!

Awards

Go for gold! Well, at least a certificate

Contests

Want to test yourself? And your station?

- ▶ HF, VHF/UHF. Field days. Local and multi-national contests



The WIA – the one source you can trust

Advancing and protecting our privileges

- ▶ Every licensee has a stake!
- ▶ Collective action over decades achieved all we enjoy
- ▶ Your trusted voice with the authorities – nationally and globally
- ▶ Effective, regular consultations with the amateur fraternity
- ▶ Always ensuring our privileges are aligned internationally



Protecting our spectrum

- ▶ Retained continuing access to the 6m, 70cm, 13cm & 9cm bands
- ▶ Always acting to have intruders removed from our bands
- ▶ Opposing interference threats

National news service – VKIWI

- ▶ Keep up-to-date – local, global and space news
- ▶ Weekly nationwide broadcasts – 30 minutes of audience-based news
- ▶ On the bands and online in text, audio and video
- ▶ Trusted support for amateur radio clubs and societies

Member Engagement

- ▶ Website – www.wia.org.au
- ▶ Facebook – www.facebook.com/wiavk
- ▶ Podcast – www.wia-files.com/podcast/wianews.xml
- ▶ Twitter – twitter.com/VKIWI
- ▶ Youtube – tinyurl.com/WIA-News-Videos
- ▶ Memnet – member-exclusive email bulletins

WIA history

Our origins go back to 1910, when the first Institute was formed to represent wireless experimenters to the government. Major reform of the Radiocommunications Act over the early 2000s, and to amateur radio licensing worldwide, saw a single national organisation formed in 2004 to meet the emerging challenges

WIA around the world

The WIA represents you internationally.

We're a member of the International Amateur Radio Union (IARU), which advocates for amateurs' interests to the International Telecommunications Union, particularly at its World Radio Conferences. These determine global radio regulations and frequency allocations.

The WIA is the only Australian amateur radio body with membership of the International Amateur Radio Union.

WIA national office: Unit 20, 11-13 Havelock Road, Bayswater, Victoria 3153

Hours: 9am-5pm EAST, Mon-Fri. Postal: PO Box 2042, Bayswater, Vic 3153

Join or renew / encourage a friend

Use our Online Membership system, visit:

www.wia.org.au/joinwia/wia/onlinejoin/

Or call (03) 9729 0400.



GOT A NEW LICENCE? 1-Year Additional Membership on us!

If you have received an Amateur Operators Certificate of Proficiency (AOCP) – Foundation, Standard or Advanced – or if you are an Amateur Radio Operator, SWL or other interested party and at any time have not previously been a member of the WIA, you may be eligible for an additional 1-year membership extension to your first years WIA membership subscription*.

If this is you, or someone you know, all that is needed is to complete a WIA membership application form (hard or soft copy) along with a copy of the relevant AOCP qualification (or equivalent if applicable) showing the date of qualification attainment and send them to the WIA head office for processing. Join now and start receiving all the benefits of WIA membership.

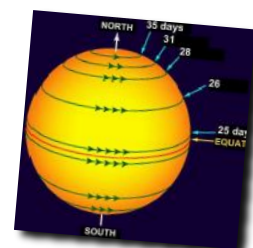
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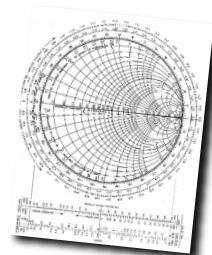
Magazine Reviews

Amateur Radio Magazine WIA Vol 92 Number 4

- P4 Editorial. Roger Harrison. Ode to Bundaberg. Definition of “amateur radio”.
- P5 Your WIA working for you. ACMA and WIA, repeaters and beacons, smoothing paths to frequencies and licensing.
- P8 AN online DXCC map of the world. Marc VK3OHM. Review of OpenStreetMap for amateur radio use.
- P12 Annual Awards. Roger VK2ZRH. Awards from the Publication Committee to contributors to AR.
- P15 Centenary of first direct communications by wireless UK – Australia.
- P16 What’s in your logo? Peter VK3RV. A look at the WIA logo through the years and what has influenced its design.
- P21 Anzac Day on-air event for 2024. AM and CW. Mike vk4MIK. Report on the 15th Anzac Day Event, locations of the stations along the Queensland coast and the many dedicated operators participating.
- P23 Comprehensive, innovative test sets for processing homebrew transmitters. Part 2. Lou VK3AQZ. Discussion and construction details of the test gear Lou has built while building his many homebrew projects.
- P30 A GPS-controlled frequency reference to build, for the shack or in the field. Part 3. Software review and how to load and setup the code. Finally, how to best utilize this bit of gear.
- P40 Fixed it. A Wobbly FT-101ZD. Keith VK5OQ. A FT101 with a VFO jumping frequency problem and locating the single component causing the fault.
- P42 Are we there, yet? Roger VK2ZRH. Month after month, Solar Cycle 25 has risen and risen. When will it stop and what is it doing to the bands? What are sunspots, why do they spin, and what is a sunspot number?
- P47 The charms of Winter propagation on the VHF – UHF - μ wave bands. Greame VK2QJ. Report from the 2024 Winter VHF – UHF Field Day by the Summerland Amateur Radio Club.
- P49 I am bored, what do I do now? Peter VK5PJ. Trying WSTJ-Z, built 5 element 10M beam and working long path to Europe while the XLY is away.
- P50 Peter Richard Lord VK3FPL, SK.
- P51 Highlights from the WIA Convention and AGM 2024. Roger VK2ZRH. Report and images of the AGM, along with dinners, practical AR activities.



- P54 Newcomers' Notebook. Jules VK3JFP. A newcomer's tour of the Smith Chart. With the availability of NanoVNA putting network analysis easily in the hands of many, an understanding of Smith Charts helps to understand the Vana's capabilities.
- P59 Dick Rutan KB6LQS, SK.
- P60 ALARA. Jenny VK3WQ. Contest updates. AGM Highlights and Club of the year.
- P62 Below 25. Alec VK2MV. Activities including at the WIA AGM, John Moyle and how soe operators acquired their callsigns.
- P64 WIA DX Awards. Marc VK3OHM/VK3IP

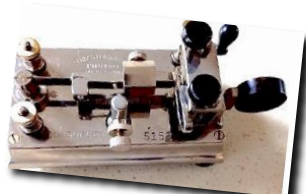


OTN Journal Number 74, September 2024 Review

- P2 From the Editor. Looking for a new editor.
- P4 RAOTC 2023 – 2024 Annual Report
- P6 AGM 2024 Treasurers Report.
- P7 AGM 2024 Meeting Agenda.
- P8 AGM 2023 Minutes.
- P10 Leading Lights and Bright Sparks. Part 2. Peter VK3RV. Continuing article on the Melbourne City Councils Electric Supply Company, the end to the DC supply and the Mercury Arc Rectifiers. The beginnings of VK3YE, the Electric Supply Social Club and its station at Heffernan Lane Substation in the 1930's and the start of public lighting in the city.
- P14 Essendon Direction Finding Station. Tim VK3YBP. This station worked in conjunction with Mascot Airport system in the 1930's, to help locate aircraft around the country and over the seas.
- P16 Centralised Radio at Hotel Australia. Tim VK3YBP. History of Hotel Australia in Sydney, 1936. This was a system involving an internal public address/radio system to provide "piped" music and rebroadcast eight local AM radio stations.
- P19 A Radio Rescue. Tim VK3YPB. Notes on a rescue in 1936 involving amateurs VK3TU, VK8GF and the urgent need for the Flying Doctor.
- P20 The Mecograph Key. Herman VK2IXV. A unique design of a morse keyer, manufactured from 1905 to 1913.
- P22 Max Morris, VK3GMM SK
- P23 Bob Crowle, VK3CDV SK.
- P25 Deep Space Atomic Clock. Stephen VK3HK. About NASA's atomic clock project and its benefits to space craft and navigation.



- P26 Moon Standard Time, Andrew VK3CAH. NASA is set to create a lunar-centric time reference in response to all the current and future lunar exploration and possible occupation of its surface.
- P28 RAOTC Members List.
- P31 Maurie O'Keefe and the Clipsal Morse Key. Peter VK3XQ. Learning morse code from a WW2 Lancaster Bomber radio operator and locating a Clipsal 610 Morse Key.
- P33 What is the CQ DX Marathon? Bill AJ8B. What it is and why you should participate.
- P36 My First Beam Project. Bill AJ8B. In the quest to chase DX, Bill's details on construction of his HEX Beam antenna and mast with rotator.
- P39 Wireless Comes to Cliffy Lighthouse. Tim VK3YPB. Cliffy Lighthouse was the first Australian lighthouse to have wireless installed.
- P40 Point Nemo and the Spacecraft Graveyard. Andrew VK3CAH. Discusses the location in the South Pacific that is prime target for decommissioned satellites to crash when re-entering the atmosphere.
- P43 The Dunduplex Morse Key. Herman VK2IXV. A two movement anti-cramp key, made in the early 1900's.
- P45 DX – Using an indoor antenna. Gordon GM4SVM. Fitting and using "loft" antennas.
- P48 Holiday DXing. Mike VK3BDL. About going on holiday and operating AR during various eras of our history. QSL cards from past Dxpeditons and individuals activating remote locations. Basics of working overseas, gear to take, and how to get it there.
- P54 Colour OTN Download Service. It is now possible for members to download a colour version of this journal.

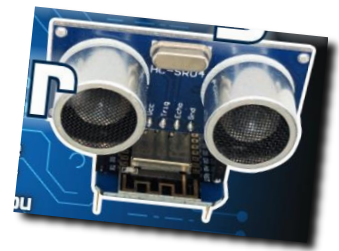


Silicon Chip August 2024 Review

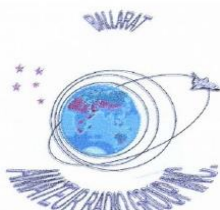
- P2 Editorial: Practical Electronics to be associated with SC as the publisher of PE is retiring. So there is the possibility of cross pollination of articles.
- P12 Tracking and Locating Devices. David VK3DSM. A look at modern technology and the various tracking devices that are available, and that you may not know have already.
- P27 The Styloclone. Phil Prosser. A great project based on the original Stylophone. A single note at a time, you played the tune with a stylus. A very simple and basic design using LM555, LM386 and a couple of NPN BJT's to provide the characteristics vibrato. Along with tuning instructions and good self-explanatory diagrams.
- P38 Electronics Manufacturing in Australia. Part 1. Kevin Poulter. Astor, PYE, AWA, EMI, Philips and Malvern Star are some of the makes and brands mentioned in this series of how it used to be here in Australia when we made most of our household



- P44 Dual Mini LED Dice. Nicholas Vinen. An SMD and thought hole designs for a simple design using 74HC393, 74HC132, 74HC07, and some BAT54A diodes, powered by a CR2032 with a press-button activation or by an onboard vibration sensor.
- P55 Mini Projects #007. Ultrasonic Garage Door Notifier. Tim Blythman. Jaycar. A nice project that detects if your car is in the garage or if position right, if you have left the garage tilt-a-door open. A WiFi connection, using WiFi Mini ESP8226 and a HC-SR04 ultrasonic unit.
- P58 Mini Projects #009. Stroboscope and Tachometer. Tim Blythman. Jaycar. A compact design of a handy device to measure shaft speed and as a strobe to capture repetitive scenes. Uses a UNO and a LCD/Keypad shield, to make construction easy and simple to accomplish.
- P61 Circuit Notebook. Reading a BCD switch using one micro pin. Op-Amp based Guitar Equaliser. Tunnel timer for model railways.
- P64 Review. Altium Designer 24. Tim Blythman. A look at the latest additions to the design IDE.
- P70 Beer Can Filler. Brandon Speedie. A semi-automatic can filler for the home brewer. Using TECO brand PLC and graphic panel an open famed machine that purges the can before and after decanting the amber fluid.
- P76 180 – 230V DC Motor Speed Controller. Part 2. The construction details and assembly diagrams along with setup and testing procedure.
- P87 Vintage Radio. HMV 42-71 Daul Wave Superhet Receiver. Marcus Chick. A 1950's design, five valve, radio with broadcast, gram and 3 shortwave ranges. From 5.9MHz to 31.92MHz over the SW broadcast frequencies.
- P92 Serviceman's Log. Stress testing electronics. Intermittent LED magnifier. Beeping and oscillating fan. Repair of an extension lead.



BARG Office Bearer Nomination Forms



B.A.R.G. Inc. NOMINATION FORM

Ballarat Amateur Radio Group—Inc # 6953T

DATE: _____

I wish to Nominate _____ CALL: _____

For the position of _____ of BARG Inc.

Nominated by: _____ and _____

Nomination accepted by: (Nominee) _____